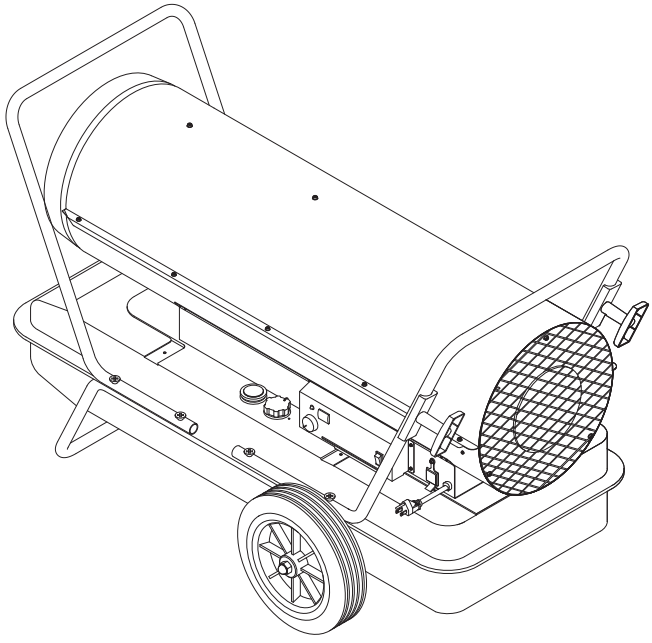
INDOOR/OUTDOOR PRODUCTS

KEROSENE PORTABLE FORCED AIR HEATERS

"USER'S MANUAL AND OPERATING INSTRUCTIONS"



COMPLIES WITH
ANSI A10.10-1998
CAN/CSA/B140.0-03 AND CSA
B140.8-1967

Dyna-Glo DELUX PROFESSIONAL GRADE

MODEL : **KFA400DGD**

Before the first use of this heater, please read this USER'S MANUAL very carefully. This USER'S MANUAL has been designed to instruct you as to the proper manner in which to assemble, maintain, store, and most importantly, how to operate the heater in a safe and efficient manner. Please keep this manual for future reference.

CONSUMER : Retain this manual for future reference.

Questions, problems, missing parts? Before returning to your retailer, call our customer service department at 877-447-4768 8:30 a.m. - 4:30 pm CST, Monday - Friday.
or email us at customerservice@ghpgroupinc.com

NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!

⚠ DANGER: IMPROPER USE OF THIS HEATER CAN RESULT IN SERIOUS INJURY OR DEATH FROM BURNS, FIRE, EXPLOSION, ELECTRICAL SHOCK AND/OR CARBON MONOXIDE POISONING.

⚠ WARNINGS:

1. RISK OF INDOOR AIR POLLUTION!

- **Use this heater only in well ventilated areas.** Provide at least a three-square foot (2,800 sq. cm.) opening of fresh outside air for each 100,000 BTU/hr. of heater rating.
- People with breathing problems should consult a physician before using the heater.
- **Carbon monoxide poisoning:** Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness and/or nausea. If you have these signs, the heater may not be working properly.
  Get fresh air at once! Have the heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, persons with heart or lung disease or anemia, those under the influence of alcohol, or those at high altitudes.
- Never use this heater in living or sleeping areas.

2. RISK OFBURNS/FIRE/EXPLOSION!

- **NEVER** use any fuel other than 1-K kerosene, #1 disel/fuel oil in this heater.
- **NEVER** use fuel such as gasoline, benzene, paint thinners or other oil compounds in this heater. **(RISK OF FIRE OR EXPLOSION)**
- **NEVER** use this heater where flammable vapors may be present.
- **NEVER** refill the heaters fuel tank while heater is operating or is still hot.

⚠ CAUTION: Hot while in operation. Do not touch. Keep children, clothing and combustibles away from heater.

Minimum Clearances: Outlet: 8 feet (250cm) / Sides, top and rear: 4 feet (125cm)

- **NEVER** block air inlet (rear) or air outlet (front) of heater.
- **NEVER** use duct work in front or behind of heater.
- **NEVER** move, handle, service a hot, operating or plugged in heater.
- **NEVER** transport heater with fuel in it's tank.
- When used with an optional thermostat or if equipped with a thermostat heater may start at any time.
- **ALWAYS** locate heater on a stable and level surface.
- **ALWAYS** keep children and animals away from heater.
- Bulk fuel storage should be a minimum of 25 ft. from heaters, torches, portable generators or other sources of ignition. All fuel storage should be in accordance with federal, state or local authorities having jurisdiction.

3. RISK OF ELECTRIC SHOCK!

- Use only the electrical power (voltage and frequency) specified on the model plate of the heater.
- Use only a three-prong, grounded outlet and extension cord.
- **ALWAYS** install the heater so that it is not directly exposed to water spray, rain, dripping water or wind.
- **ALWAYS** unplug the heater when not in use.

PROPOSITION 65 WARNING: Fuels used in gas, wood-burning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

MASSACHUSETTS RESIDENTS: Massachusetts state law prohibits the use of this heater in any building which is used in whole or in part for human habitation. Use of this heating device in Massachusetts requires local fire dept. permit (M.E.L.C. 148, Section 10A.)

CANADIAN RESIDENTS: Use of this heater shall be in accordance with authorities having jurisdiction and CSA Standard B139.

NEW YORK CITY RESIDENTS: For use only at construction sites in accordance with applicable NYC codes under NYCFD certificate of approval # 5034 and 5037.

NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!

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1. INTRODUCTION

Please read this USER'S MANUAL carefully. It will show you how to assemble, maintain, and operate the heater safely and efficiently to obtain full benefits from its many built-in features.

2. FEATURES

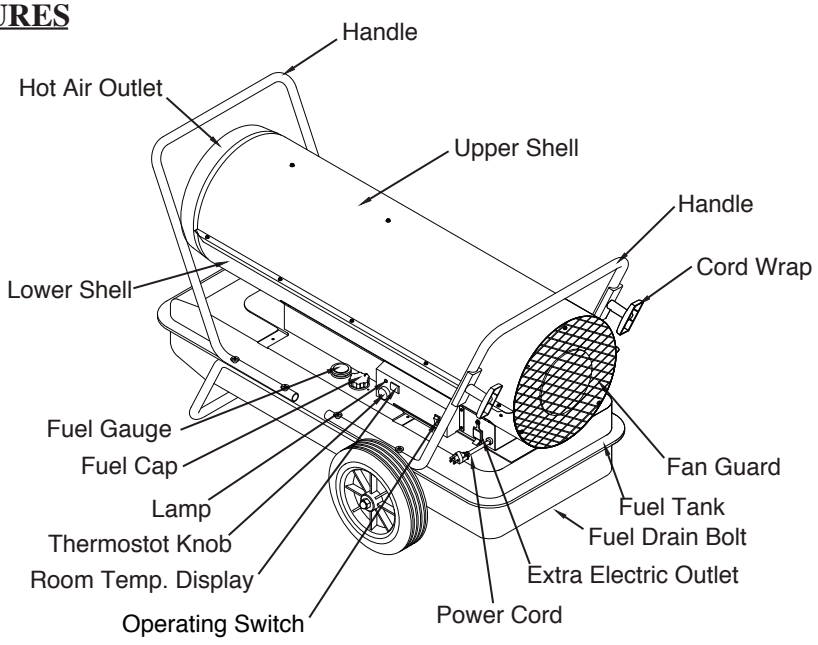
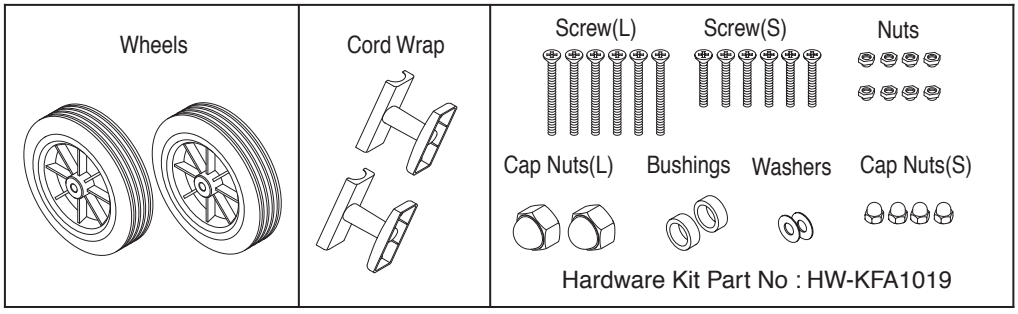


Figure 1. KFA400DGD MODEL

NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!

3. UNPACKING AND ASSEMBLY

1. REMOVE THE HEATER AND ALL PACKING MATERIALS FROM THE BOX. (See Fig.2)
   NOTE: Save the shipping carton and packing materials for future storage.



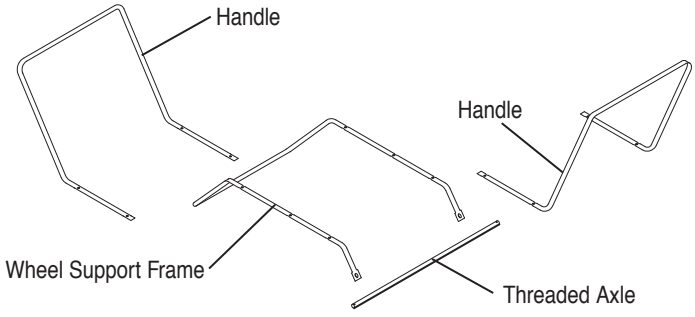


Figure 2. PACKING MATERIALS

2. ASSEMBLING

Tools Required

Medium Phillips Screwdriver
24mm Socket Wrench

Assembling wheel & handle & cord wrap

1) Slide threaded axle through the rear sectioon of the wheel support frame.
2) Slide one axle bushing on to each side of the axle. Slide one wheel on to each side of the axle. Attach one cap nut on to each side of the threaded axle and tighten well.
3) Place heater on wheel support frame. Make sure air inlet end (rear) of heater is over wheels. Align the holes on fuel tank flange. Insert screws(L) through handles (front and Rear), fuel tank flange, and wheel support frame. Insert screws(S) through rear handle, fuel tank flange, and washer(S) as shown in figure 3 and attach nut finger tight after each screw is inserted.
4) After all screws are inserted, tighten nuts firmly.
5) Align the hole on the rear handle with the mounting hole on the cord wrap.
6) Insert screws through cord wrap, rear handle as shown in Figure 3 and attach nut finger tight after each screw is inserted.
7) After all screws are inserted, tighten nuts firmly.

⚠ **CAUTION: DO NOT OPERATE heater without support frame assembled to tank.**

NEVER LEAVE THE HEATER
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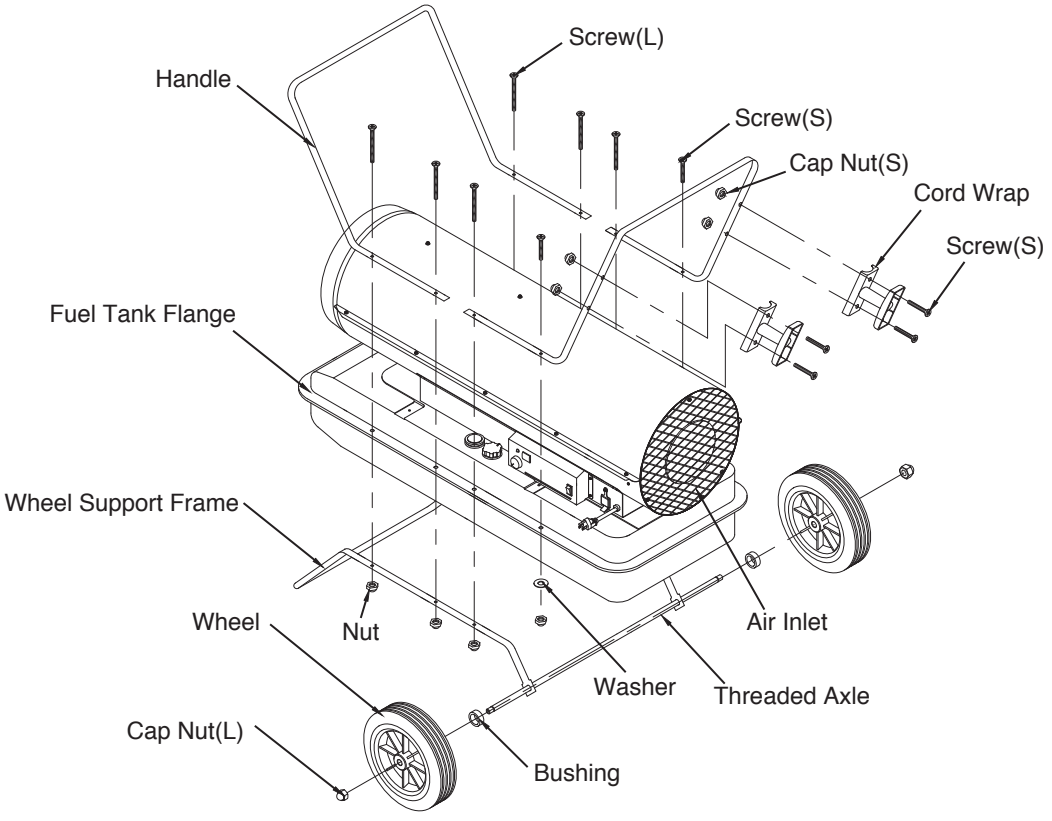

Figure 3. Assembling Handle & Wheel and Cord wrap

4. KEROSENE (1-K)

For optimal performance of this heater, it is strongly suggested that 1-K kerosene be used. 1-K kerosene has been refined to virtually eliminate contaminants, such as sulpher. Which can cause a rotten egg odor during the operation of the heater. However, #1 diesel/fuel oil may also be used if 1-K kerosene is not available. Be advised that these fuels do not burn as clean as 1-K kerosene, and care should be taken to provide more fresh air ventilation to accomodate any added contaminants that may be added to the heated space.

KEROSENE SHOULD ONLY BE STORED IN A BLUE CONTAINER THAT IS CLEARLY MARKED "KEROSENE". NEVER STORE KEROSENE IN A RED CONTAINER.
Red containers are associated with gasoline.

NEVER store kerosene in the living space. Kerosene should be stored in a well ventilated place outside the living area.
NEVER use any fuel other than 1-K kerosene (#1 fuel oil is an acceptable substitute.)
NEVER use fuel such as gasoline, benzene, alcohol, white gas, camp stove fuel, paint thinners, or other oil compounds in this heater. These are volatile fuels that can cause an explosion or uncontrolled flames.
NEVER store kerosene in direct sunlight or near a source of heat.
NEVER use kerosene that has been stored from one season to the next. Kerosene deteriorates over time. **"OLD KEROSENE" WILL NOT BURN PROPERLY IN THIS HEATER.**

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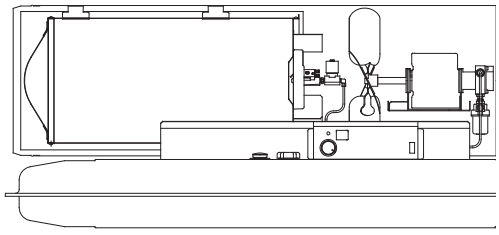
5. OVERVIEW OF HEATERS DESIGN



Fuel System: This heater is equipped with a Fuel pump(Gear)that pulls fuel through the fuel line connected to the fuel tank and then pushes fuel through a filter and a solenoid valve and out the burner head nozzle.
This fuel is sprayed into the combustion chamber in a fine mist.

"Sure Fire Ignition": The electronic ignitor sends voltage to a specially designed spark plug.
The spark plug ignites the fuel and air mixture.

The Air System: The heavy duty motor turns a fan that forces air into and around the combustion chamber. This air is heated and then forced out the front of the heater.

The Safety System:

A. Temperature Limit Control: This heater is equipped with a Temperature Limit Control designed to turn off the heater should the internal temperature rise to an unsafe level. If this device activates and turns your heater off it may require service.

Internal Shut-Off Temp. Plus/Minus 10 Degrees	Reset Temperature Plus/Minus 10 tDegrees
176˚F/80˚C	122˚F/50˚C

B. Electrical System Protection : This heaters electrical system is protected by a fuse mounted to the PCB assembly that protects it and other electrical components from damage. If your heater fails to operate check this fuse first and replace as needed.

FUSE TYPE:	250 VAC / 8 amps

C. Flame-Out Sensor : Utilizes a photocell to monitor the flame in burn chamber during normal operation. It will cause the heater to shut-off should the burner flame extinguish.

6. FUELING YOUR HEATER

NEVER FILL THE HEATER FUEL TANK IN THE LIVING SPACE: FILL THE TANK OUTDOORS.
DO NOT OVERFILL YOUR HEATER AND BE SURE HEATER IS LEVELED.
IMPORTANT NOTICE REGARDING FIRST IGNITION OF HEATER:
The first time you light the heater, it should be done outdoors. This allows the oils, etc. used in manufacturing the heater to burn off outside.

⚠ **WARNING!!: NEVER REFILL HEATER FUEL TANK WHEN HEATER IS OPERATING OR STILL HOT.**

NEVER LEAVE THE HEATER
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7. OPERATION

A.) VENTILATION

RISK OF INDOOR AIR POLLUTION/USE HEATER ONLY IN WELL VENTILATED AREAS.
Provide at least a three-square foot(2,800 sq. cm.) opening of fresh outside air for each 100,000 BTU/hr. of heater rating.

B.) OPERATION

TO START HEATER

1. Fill fuel tank with kerosene or No. 1 fuel oil.
2. Attach fuel cap.
3. Plug power cord of heater into three-prong, grounded extension cord.
   Extension cord must be at least six feet long.
   Extension Cord Wire Size Requirements
   - 6 to 100 feet long, use 14 AWG conductor.
   - 101 to 200 feet long, use 12 AWG conductor.
   - 201 to 300 feet long, use 10 AWG conductor.
   - 301 to 400 feet long, use 8 AWG conductor.
   - 401 to 500 feet long, use 6 AWG conductor.
4. Turn "Thermostat Control Knob" to desired setting(setting range : 40°F~110°F) and push operating switch to "ON" position, power indicator lamp and room temp. display will light and heater will start.

NOTE: Room Temp. display indicates as following,

- When room temp. is less than 0°F : "Lo"
- When room temp. is between 0°Fand 99°F : Indicates in figure.
- When room temp. is more than 99°F : "Hi"

If heater does not start, the thermostat setting may be too low, turn "THERMOSTAT CONTROL Knob" to higher position to start heater. If heater still does not start, turn operating switch to "OFF" and then to "ON" position. (Figure 4). If heater still does not start, see Troubleshooting Guide on page 13.

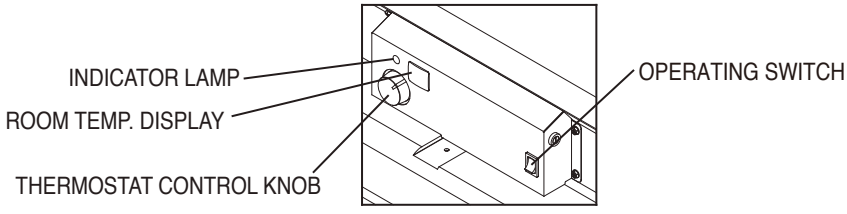

Figure 4. CONTROL PARTS

NOTICE : The major electrical components of this heater are protected by a safety fuse mounted to the PCB board. If your heater fails to start, check this fuse first and replace as necessary. You should also check your power source to insure that proper voltage and frequency are being supplied to the heater.

NEVER LEAVE THE HEATER
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TO STOP HEATER

⚠ CAUTION ; Never unplug heater while heater is running
Heater must go through cooling cycle. The cooling cycle cools the combustion chamber. Damage to heater can occur if combustion chamber is not cooled. Do not restart heater until cooling cycle is complete.

1. Turn operating switch to "OFF".
   This will cause heater flame to go out.
   The motor will continue to run during the cooling cycle.
   (Room Temp. Display will show "CC" during the cooling cycle)
   This allows the fan to cool the combustion chamber. When the cooling cycle (approx.1Min) is finished, the motor will stop.
   Do not unplug heater until cooling cycle is finished.
2. Unplug power cord.
3. To temporarily stop heaters, set thermostat at a temperature lower than air around heater, Heater will cycle back on if air temperature around heater matches thermostat setting.

TO RESTART HEATER

⚠ CAUTION ; Do not restart heater until cooling cycle is finished.
The cooling cycle cools the combustion chamber.

1. Wait until cooling cycle is finished after stopping heater.
2. Repeat steps under to start HEATER.

EXTRA ELECTRIC OUTLET

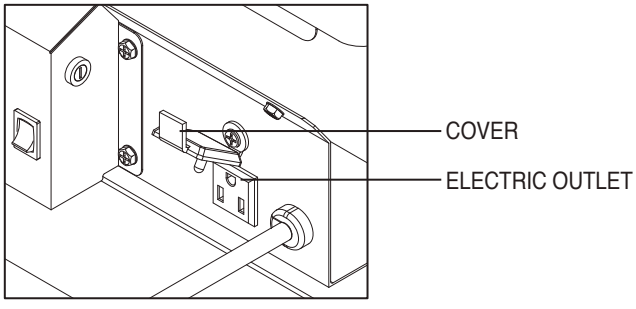

Figure 5. EXTRA ELECTRIC OUTLET

⚠ WARNING ; SHOCK HAZARD!

- Always cover electric outlet when not in use.
- Do not plug in and use an appliance of more than 120V 5A current in this outlet.

NEVER LEAVE THE HEATER
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8. LONG TERM STORAGE OF YOUR HEATER

1. Remove fuel drain bolt from rear bottom side of fuel tank using 3/4" socket or adjustable wrench and drain.
2. Using a small amount of kerosene, swirl and rinse the inside of the tank.
   NEVER mix water with the kerosene as it will cause rust inside the tank.
   Pour the kerosene out making sure that you remove it all.

   IMPORTANT : Do not store kerosene over summer months for use during next heating season. Using old fuel could damage heater.

3. Reinstall Fuel Drain Bolt to Fuel tank and tighten firmly using 3/4" socket or adjustable wrench.

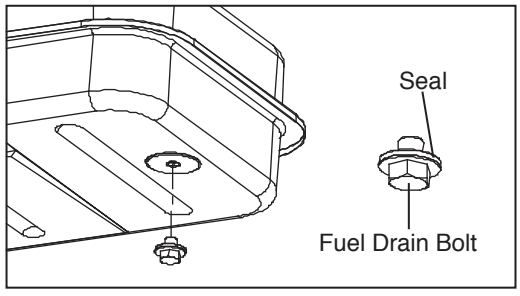

Figure 6. Drain Bolt

IMPORTANT : Before reinstalling the fuel drain bolt, make sure the seal is on the bolt. If the seal is not used the bolt cannot be installed correctly and the fuel tank will leak.

4. Store heater in dry well ventilated area. Make sure storage place is free of dust and corrosive fumes.
5. Store the heater in the original box with the original packing material and keep the USER'S MANUAL with the heater.

NEVER LEAVE THE HEATER
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9. MAINTENANCE

WARNING!! NEVER SERVICE HEATER WHILE IT IS PLUGGED IN OR WHILE HOT!

USE ORIGINAL EQUIPMENT REPLACEMENT PARTS. Use of third party or other alternate components will void warranty and may cause unsafe operating conditions.

A.) UPPER SHELL REMOVAL

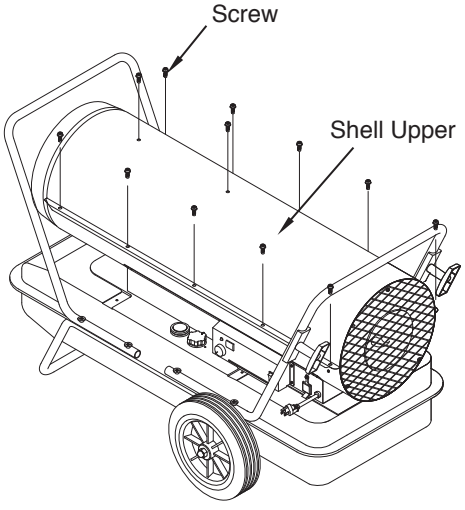

Figure 7. Upper Shell Removal

-Remove screws along each side and top of heater using medium phillips screw driver.
-Lift upper shell off.
(See Figure 7)

B.) FAN BLADES AND AIR DEFLECTOR CLEAN EVERY SEASON OR AS NEEDED.

- Remove upper shell (See figure 7 above)
- Clean fan blades and air deflectors using a soft cloth moistened with kerosene or solvent.
- Dry fan blades and air deflectors thoroughly.
- Reinstall upper shell.

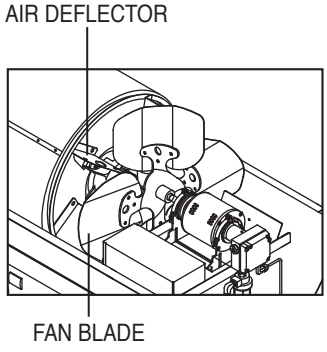

Figure 8. Fan Blades and Air Deflectors

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C.) SPARK PLUG

CLEAN AND REGAP EVERY 600 HOURS OPERATION OR REPLACE AS NEEDED.

- Remove upper shell (See page 9).
- Remove spark plug wire from spark plug (See Figure 9)
- Remove spark plug from burner head using medium phillips screw driver.
- Clean and regap spark plug electrodes to 0.14”(3.5mm) gap.
- Reinstall spark plug in burner head.
- Attach spark plug wire to spark plug.
- Reinstall upper shell.

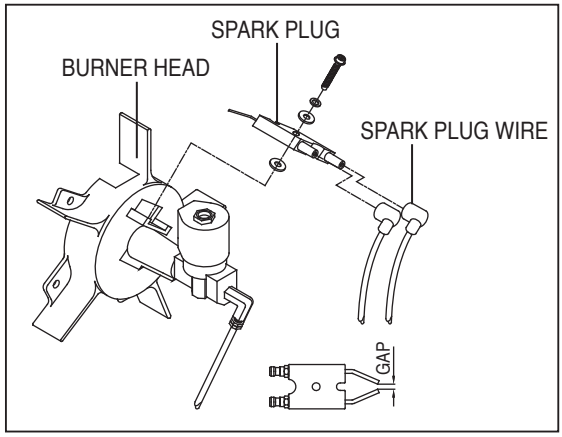

Figure 9. Spark Plug

D.) NOZZLE

REMOVE DIRT IN NOZZLE AS NEED (See page 14)

- Remove upper shell (See page 9).
- Remove fuel line from solenoid valve using 1/4” wrench.
- Remove spark plug wire from spark plug.
- Remove spark plug from burner head using medium phillips screw driver.
- Remove five screws using medium phillips screwdriver and remove burner head from combustion chamber.
- Carefully remove nozzle from burner head using 5/8” socket wrench.
- Blow compressed air through face of nozzle.
  (this will remove any dirt in nozzle)
- Inspect nozzle for damage. If damaged or clogged, replace nozzle.
- Make sure plug is in place on burner head.
- Reinstall nozzle into burned head and tighten firmly. (175~200 inch-pounds)
- Reinstall spark plug in burner head.
- Attach burner head to combustion chamber.
- Attach spark plug wire to spark plug.
- Attach fuel line to solenoid valve tighten firmly.
- Replace upper shell.

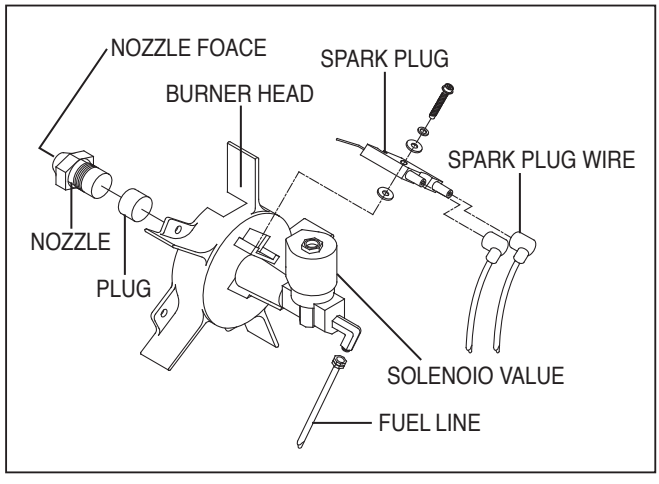

Figure 10. NOZZLE

NEVER LEAVE THE HEATER
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E.) PHOTOSHOP

CLEAN PHOTO CELL ANNUALLY OR AS NEEDED.

- Remove upper shell(See Page 9)
- Remove photocell from photocell Bracket and disconnect photocell from connector.
- Clean photocell lens with cotton swab.
- Inspect photcell lens for damage. If damaged, replace photocell.

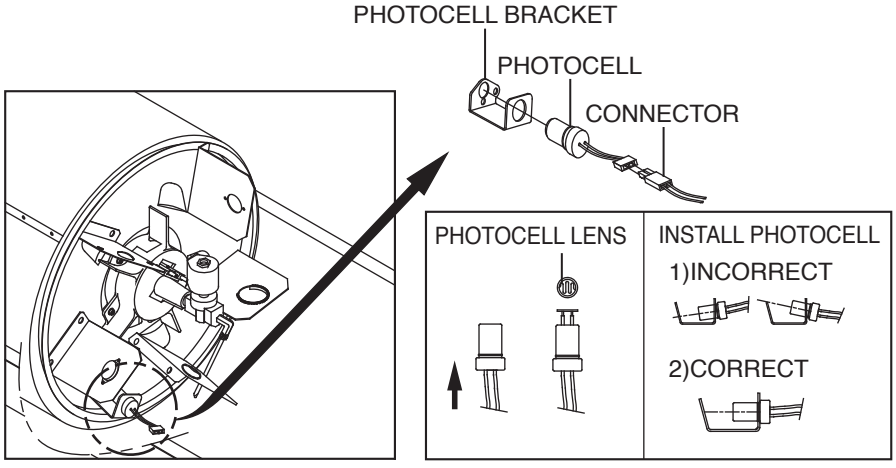

Figure 11. Clean photocell Lens

F.) FUEL LINES

TIGHTENING FUEL LINES ANNUALLY OR AS NEEDED.

- Remove upper shell (See page 9).
- Use 1/4" wrench and tighten fuel lines(A) at solenoid valve and at pump. (See Figure 12)
- Remove fan guard (See Figure 13)
- Use 3/8" wrench and tighten fuel lines (B) at pump, pump fuel filter assembly.
- Reinstall fan guard.

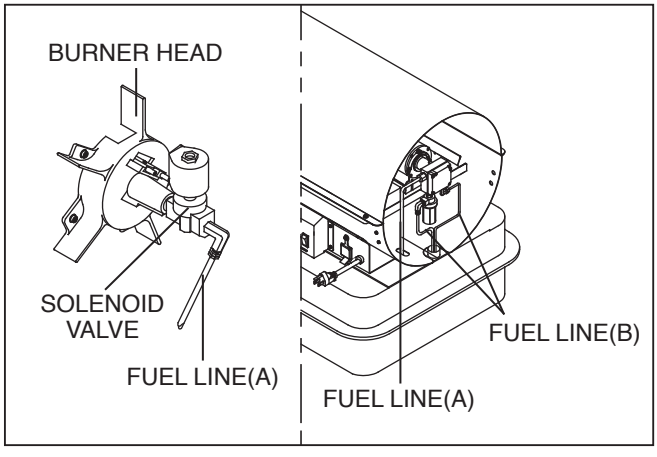

Figure 12. Tighten fuel line

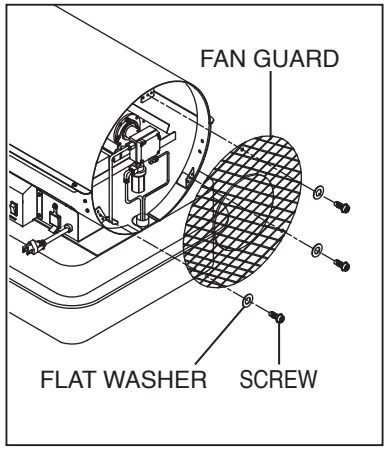

Figure 13. Remove Fan guard

NEVER LEAVE THE HEATER
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G.) FUEL FILTER

CLEAN TWICE PER HEATING SEASON OR AS NEEDED.

• **Tank Fuel Filter**

- Remove fan guard (See Figure 11).
- Disconnect fuel line (B) from pumpand pump fuel filter assembly with3/8" wrench (See Figure 14).
- Remove two screws that fix bracket-filter to shell lower and remove bracket-filter.
- Carefully pry fuel filter loose from fueltank with flat end of screwdriver.
- Wash fuel lines and fuel filter with clean kerosene.
- Replace fuel filter into fuel tank.
- Replace bracket-filter to shell lower.
- Connect fuel lines (B) to pump and pump fuel filter assembly.
- Reinstall fan guard.

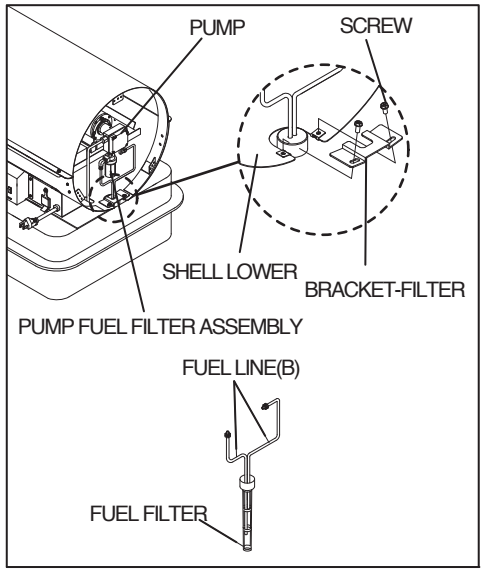

Figure 14. Remove Tank Fuel Filter

• **Pump Fuel Filter**

- Remove fan guard.(See page 11)
- Unscrew (C.W) filter bottom from filter top with adjustble pliers.
- Remove fuel filter, gasket, magnet from filter bottom.(See Figure 15)
- Wash filter bottom with clean kerosene .
- Wipe inside of filter bottom dry with clean cloth.
- Wash Fuel filter in clean kerosene.
- Remove dirt attached magnet.
- Put clean magnet, fuel filter and gasket back in filter bottom.
- Tighten firmly.

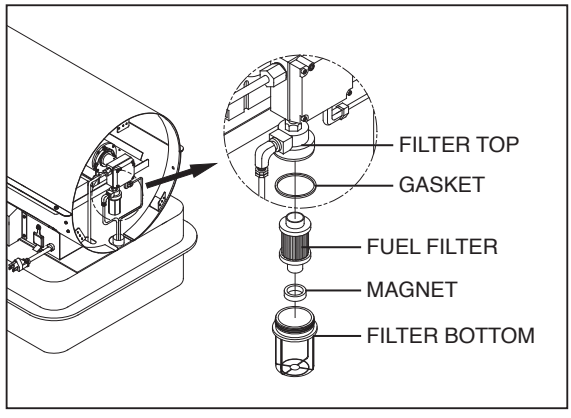

Figure 15. Fuel Pump Filter

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H.) PUMP PRESSURE ADJUSTIMENT

- Remove pressure gauge plug from pump with 1/8" allen wrench.
- Install accessory pressure gauge to pressure gauge port. (See Figure 16)
- Start heater (See operation, page 6)

Allow motor to reach full speed.

- Adjust pressure. (Using a small flat blade screw driver)

Turn pressure adj. Screw to clock wise to increase pressure.
Turn screw to counter clock wise to decrease pressure.
Set pump pressure to 125 PSI.

- Stop heater (See operation, page 6)
- Remove pressure gauge. Replace pressure gauge plug in pressure gauge port.

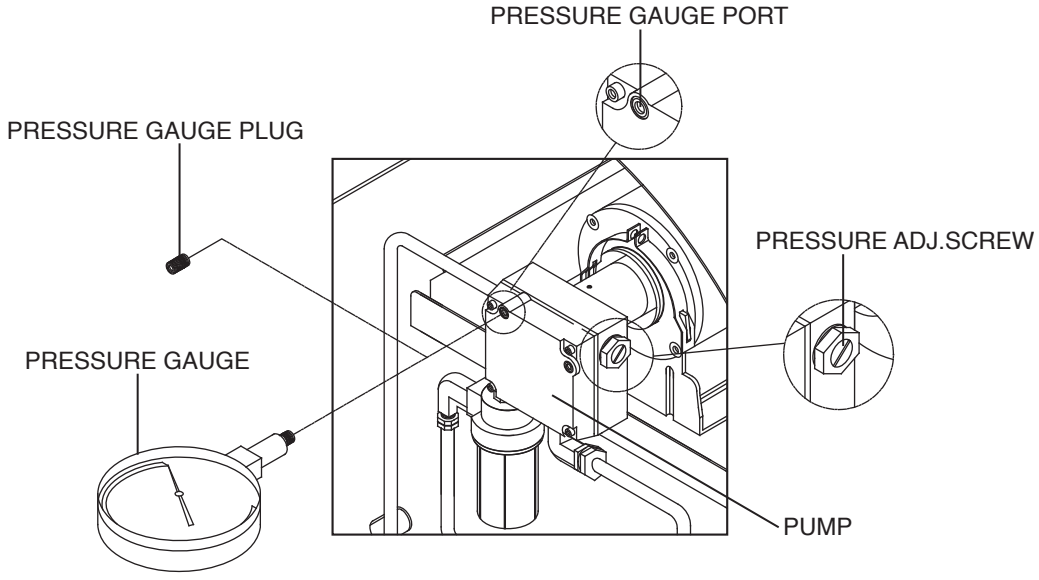

Figure 16. Adjusting Pump Pressure

NOTE: USE ONLY ORIGINAL EQUIPMENT REPLACEMENT PARTS.
USE OF ALTERNATE OR THIRD PARTY COMPONENTS WILL VOID ANY WARRANTY AND MAY CAUSE UNSAFE OPERATING CONDITION.

NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!

10. REPLACING FUSE

NOTICE : This heater is fuse protected.
If your heater fails to ignite, DO NOT RETURN YOUR HEATER TO THE STORE.
Please follow the simple instruction below to inspect and change the fuse.

PROCEDURE FOR REPLACING FUSE

⚠ WARNING : SHOCK HAZARD
To prevent personal injury, unplug the power cord before replacing fuse.

1. Unplug heater.
2. Turn Fuse Cover COUNTERCLOCKWISE 45° using a flat blade screwdriver and remove Fuse from Fuse Holder.
3. Replace Fuse with enclosed fuse.

⚠ WARNING : FIRE HAZARD
To avoid fire, Do not substitute with a higher or lower current rating.t

4. Turn Fuse Cover CLOCKWISE 45° using a flat blade screwdriver while slightly pushing.

NOTE : Specified fuse rating : 250VAC/20A

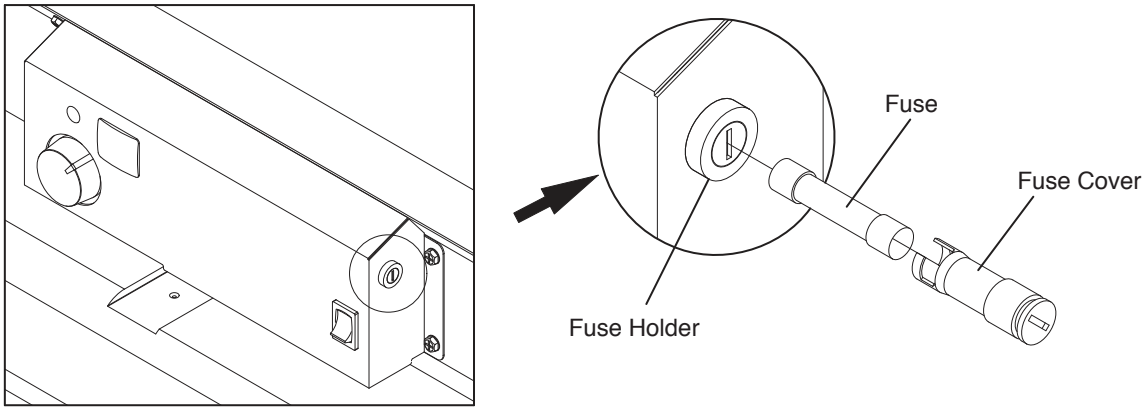

Figure 17. Replacing Fuse

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11. TROUBLE SHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE	CORRECTIVE ACTION
Heater ignites but MAIN PCB assembly shuts heater off after a short period of time. (Indicator lamp is flickering and room temp. display indicates "E1")	1. Wrong pump pressure 2. Dirty Fuel Filter 3. Dirt in Nozzle 4. Dirty Photocell Lens 5. Photocell Assembly not properly installed. (Not seeing the flame) 6. Bad electrical connection between photocell and MAIN PCB assembly 7. Defective photocell 8. Temperature limit safety device is overheated	1. See Pump Pressure Adjustment, page 13. 2. See Fuel Filter, page 12. 3. See Nozzle, page 10. 4. Clean Photocell Lens, page 11. 5. Make sure photocell boot is properly seated in bracket, (See, page 11) 6. Check electrical connections. See wiring diagram, page 15. 7. Replace photocell, page 11. 8. Turn operating switch to "OFF" and allow to cool (about 10 min.). Then turn operating switch to "ON" position.
Heater will not ignite but motor runs for a short period of time. (Indicator lamp is flickering and room temp. display indicates "E1")	1. No fuel in tank 2. Wrong pump pressure 3. Carbon deposits on spark plug and/or improper gap 4. Dirty fuel filter 5. Dirt in nozzle 6. Water in fuel tank 7. Bad electrical connection between ignitor and MAIN PCB assembly 8. Ignitor wire is not attached to spark plug 9. Defective ignitor 10. Defective solenoid valve (not opening)	1. Fill tank with kerosene 2. See Pump Pressure Adjustment, page 13. 3. See Spark Plug, page 10. 4. See Fuel Filter, page 12. 5. See Nozzle, page 10. 6. Flush fuel tank with clean kerosene, page 9. 7. Check electrical connections, See wiring diagram, page 15. 8. Attach ignitor wire to spark plug. See Spark Plug, page 10. 9. Replace ignitor. 10. Check electrical connections and voltage to solenoid valve. If defective, replace solenoid valve.
Fan does not turn when heater is plugged in and operating switch was in the "ON" position (Indicator lamp is on or flickering)	1. Thermostat setting is too low 2. Bad electrical connection between motor and MAIN PCB assembly	1. Turn thermostat control knob to a higher setting 2. Check electrical connections, See Wiring Diagram, page 15.
(Indicator lamp is flickering and room temp. display indicates "E2")	1. Room Temp. sensor disconnected 2. Sensor Failure	1. Reconnect sensor See wiring diagram, page 15. 2. Replace sensor See wiring diagram, page 15.
(Indicator lamp is flickering and room temp. display indicates "E3")	1. Thermostat switch failure	1. Replace switch See wiring diagram, page 15.
Heater will not turn-on (Indicator lamp is off)	1. No electrical power 2. Blown fuse	1. Check to insure heater cord and extension cord are plugged in. Check power supply. 2. Replace safety fuse on cover display.

NEVER LEAVE THE HEATER
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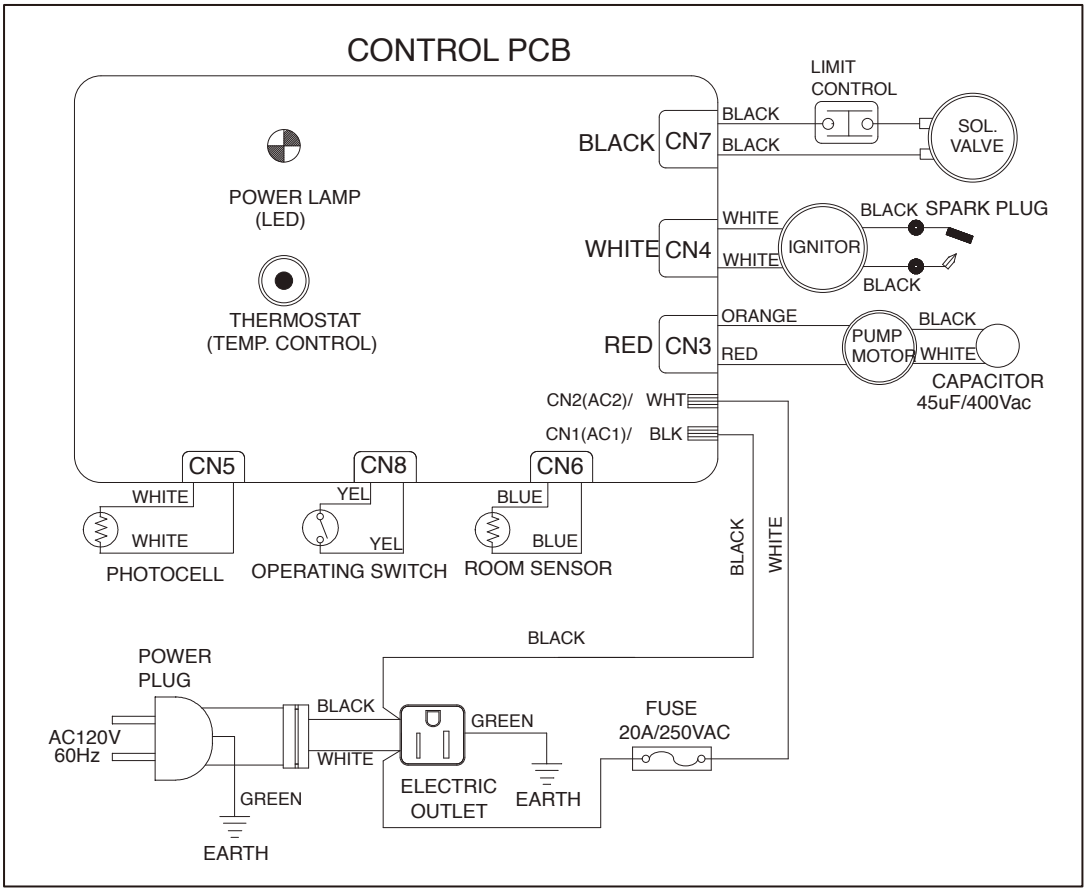
12. WIRING DIAGRAM



NEVER LEAVE THE HEATER
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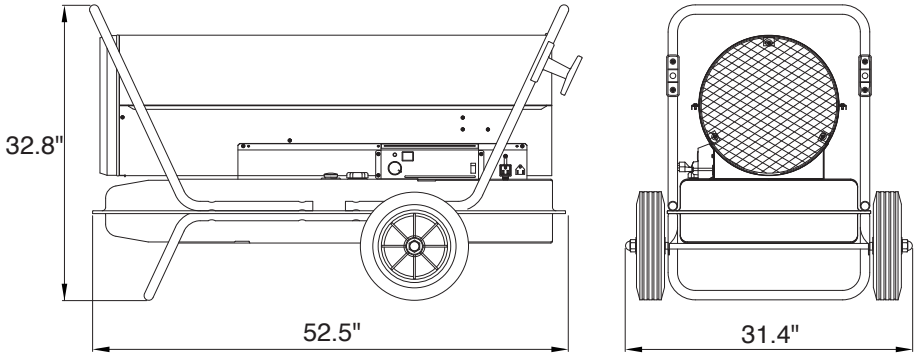
13. SPECIFICATIONS



KFA400DGD

MODEL	KFA400DGD
BTU/Hr	400,000
Fuel Consumption-Gal./ (ℓ/Hr)	3.0(11.36)
Fuel Tank Capacity-Gal (ℓ)	29.0(110.0)
Pump Pressure PSI (kgf/㎠)	125(8.79)
Volts/Hz/Amps	120VAC/60/4.4
Phase	1
Size(D × W × H), Inch(㎜)	52.5” × 31.4” × 32.8” (1,334 × 798 × 834)
Weight Ibs. (㎏)	150(68.0)

NEVER LEAVE THE HEATER
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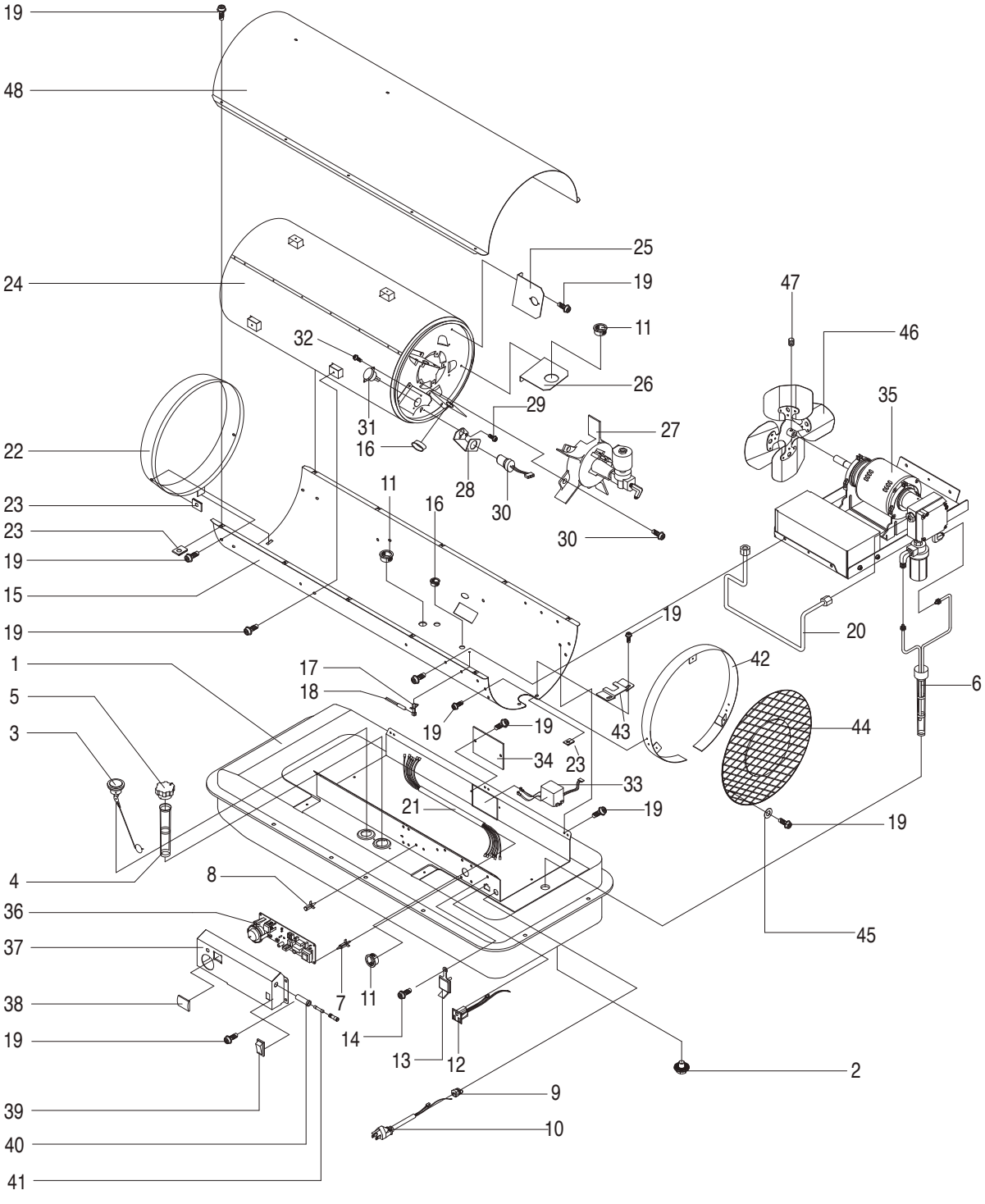
14. EXPLODED PARTS DRAWING (KFA400DGD MODEL)

NOTE: SPECIFY MODEL NUMBER AND PART NUMBER WHEN ORDERING PARTS.



NEVER LEAVE THE HEATER
UNATTENDED WHILE BURNING!

15. PARTS LIST

KEY No.	DESCRIPTION	PART No.	Quantity
		KFA400DGD	
1	Fuel Tank Assembly	2151-0025-00	1
2	Fuel Drain Bolt	4329-0072-00	1
3	Fuel Gauge	2156-0053-00	1
4	Fuel Filter	3221-0009-00	1
5	Fuel Cap	2151-0003-00	1
6	Filler Neck Assembly	2155-0007-00	1
7	Space Support	3713-0004-00	5
8	Card Support	3713-0016-00	3
9	Cord Bushing	3712-0013-00	1
10	Power Cord	3980-0087-00	1
11	Bushing Grommet(L)	3231-0121-00	3
12	Electric Outlet Assembly	39D0-0780-00	1
13	Cover Outlet	3231-0114-00	1
14	Screw Top Table	4319-0042-00	1
15	Shell Lower	3111-0195-08	1
16	Bushing Grommet(S)	3231-0120-00	2
17	Wire Clip	3715-0014-00	1
18	Thermistor	38C0-0054-00	1
19	Flange Screw	4319-0015-00	26
20	Line-Fuel	3740-0031-00	1
21	Harness-Burner	39D0-0781-00	1
22	Cone-Ouside	2153-0012-01	1
23	Clip Nut	3131-0182-00	14
24	Chamber Assembly	2152-0037-00	1
25	Air Deflector	3131-0306-00	4
26	Air Deflector	3131-0307-00	1
27	Burner Head Assembly	2152-0058-00	1
28	Bracket Photocell	3131-0159-00	1
29	Screw BH1	4311-0068-00	2
30	Photocell	2153-0007-00	1
31	Temperature Limit	38C0-0032-00	1
32	Screw PH2	4312-0021-00	2
33	Igniter	39E0-0021-00	1
34	Cover Igniter	3131-0309-01	1
35	Motor & Pump Assembly	2154-0025-00	1
36	P.C.B Assembly	215A-0056-00	1
37	Cover Display	3121-0345-08	1
38	Window Display	3231-0113-00	1
39	Operating Switch	39A0-0209-00	1
40	Fuse Holder	3930-0012-00	1
41	Fuse	3920-0061-00	1
42	Safe Guard Assembly	2153-0011-01	1
43	Bracket-Filter	3131-0465-00	1
44	Mesh Guard	3121-0336-01	1
45	Impeller Washer	3131-0240-00	3
46	Fan Assembly	2154-0021-00	1
47	Bolt Standard Socket	4323-0005-00	1
48	Shell Upper	3111-0196-08	1

FOR TECHNICAL ASSISTANCE SEE YOUR LOCAL RETAILER OR
CONTACT US AT:
Phone : 1-877-447-4768

NEVER LEAVE THE HEATER
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15. PARTS LIST (BURNER HEAD ASSEMBLY & MOTOR AND PUMP ASSEMBLY)

NOTE: SPECIFY MODEL NUMBER AND PART NUMBER WHEN DRDERING PARTS.

KEY NO.	DESCRIPTION	PART NO.
1	Burner Head	3531-0012-00
2	Plug	3541-0060-00
3	Nozzle	SP-KFA1024
4	Spark Plug	SP-KFA1009
5	Fiber Washer	4349-0017-00
6	Spring Washer	4342-0009-00
7	Flange Bolt	4329-0013-00
8	Nipple-Straight	3541-0057-00
9	Solenoid Valve	39A0-0084-00
10	Elbow Male	3740-0037-00

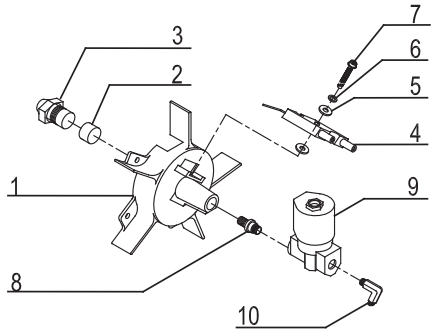

Figure 18. Burner Head Assembly

KEY NO.	DESCRIPTION	PART NO.
1	Motor	3970-0081-00
2	Supportor-Motor	3121-0334-00
3	Bolt(HH)	4321-0182-00
4	Nut Lock	4331-0022-00
5	Coupling-Pump	3531-0013-00
6	Gear Pump	3740-0026-00
7	Bolt-Headless Socket	4323-0004-00
8	Filter Oil Assembly	3740-0034-00
9	Elbow Male	3740-0044-00
10	Fitting-Straight	3740-0039-00
11	Holder Condensor	3131-0295-00
12	Bushing Grommet	3712-0004-00
13	Cover Condensor	3121-0338-00
14	Flange Screw	4319-0015-00
15	Capacitor	3820-0144-00

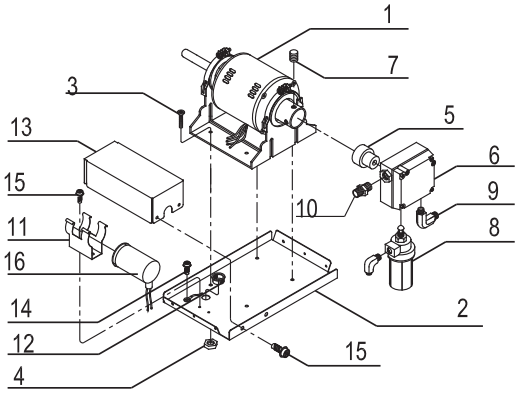

Figure 19. Motor and Pump Assembly

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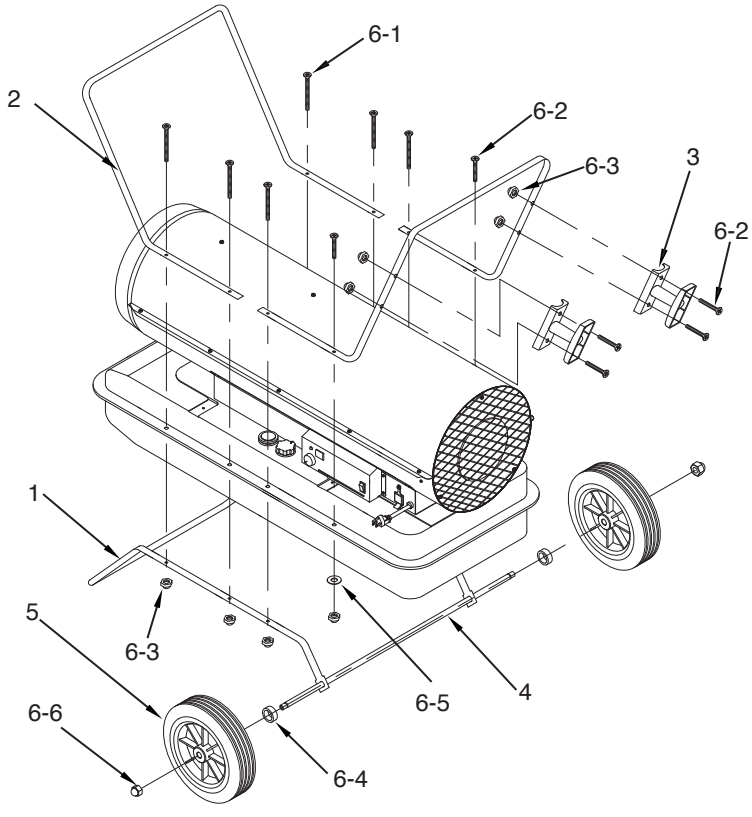
15. PARTS LIST (Wheel and Handle)

NOTE: SPECIFY MODEL NUMBER AND PART NUMBER WHEN ORDERING PARTS.

KEY NO.	DESCRIPTION	PART NO.	QTY
1	Wheel Support Frame	3551-0098-00	1
2	Handle	3551-0036-00	2
3	Cord Wrap	3221-0052-00	2
4	Threaded Axle	3541-0096-00	1
5	Wheel	3720-0004-00	2
6	Hardware Kit	HW-KFA1019	1
6-1	Screw (L)	INCLUDED IN HARDWARE KIT	6
6-2	Screw (S)	INCLUDED IN HARDWARE KIT	6
6-3	Nut	INCLUDED IN HARDWARE KIT	8
6-4	Cap Nut(S)	INCLUDED IN HARDWARE KIT	4
6-5	Bushing	INCLUDED IN HARDWARE KIT	2
6-6	Flat Washer	INCLUDED IN HARDWARE KIT	2
6-7	Cap Nut(L)	INCLUDED IN HARDWARE KIT	2



Warranty

LIMITED WARRANTY:

This limited warranty is extended to the original retail purchaser of this Forced Air/Convection/Radiant Heater and warrants against any defect in materials and workmanship for a period of one (1) year from the date of retail sale. GHP Group, Inc., at it's option, will either provide replacement parts or replace or repair the unit, when properly returned to the retailer where purchased or one of our service centers as directed by GHP Group, Inc., within one (1) year of retail purchase. (Shipping costs, labour costs, etc. are the responsibility of the purchaser.)

DUTIES OF THE OWNER:

This heating appliance must be operated in accordance with the written instructions furnished with this heater. This warranty shall not excuse the owner from properly maintaining this heater in accordance with the written instructions furnished with this heater. A bill of sale, canceled check or payment record must be kept to verify purchase date and establish warranty period. Original carton should be kept in case of warranty return of unit.

WHAT IS NOT COVERED:

1. Damage resulting from use of improper fuel.
2. Damage caused by misuse or use contrary to the owners manual and safety guidelines.
3. Damage caused by a lack of normal maintenance.
4. Fuses
5. Use of non-standard parts or accessories.
6. Damage caused in transit. Freight charges on warranty parts or heaters to and from the factory shall be the responsibility of the owner.

This warranty does not imply or assume any responsibility for consequential damages that may result from the use, misuse, or the lack of routine maintenance of this heating appliance. A cleaning fee and the cost of parts may be charged for appliance failures resulting from lack of maintenance. This warranty does not cover claims which do not involve defective workmanship or materials. **FAILURE TO PERFORM GENERAL MAINTENANCE (INCLUDING CLEANING) WILL VOID THIS WARRANTY.**

THIS LIMITED WARRANTY IS GIVEN TO THE PURCHASER IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. THE REMEDY PROVIDED IN THIS WARRANTY IS EXCLUSIVE AND IS GRANTED IN LIEU OF ALL OTHER REMEDIES. IN NO EVENT WILL GHP GROUP, INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

CLAIMS HANDLED AS FOLLOWS:

1. Contact your retailer and explain the problem.
2. If the retailer is unable to resolve the problem, contact our Customer Service Dept. detailing the heater model, the problem, and proof of date of purchase.
3. A representative will contact you. DO NOT RETURN THE HEATER TO GHP GROUP,INC. unless instructed by our Representative. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

TO REGISTER THE WARRANTY ON YOUR HEATER, PLEASE FILL OUT THIS CARD COMPLETELY
AND MAIL WITHIN 14 DAYS FROM DATE OF PURCHASE OR REGISTER ON-LINE AT www.ghpgroupinc.com

NAME: _____ PHONE: ( ) _____ EMAIL: _____
ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____
MODEL: _____ SERIAL #: _____ DATE PURCHASED: _____
DEALER PURCHASED FROM: _____ TYPE OF STORE: _____
CITY & STATE WHERE PURCHASED: _____ PRICE PAID: _____

Please Take a Minute To Give Us Your Answers To The Following Questions.

All Responses Are Used Solely For Market Research And Are Held In Strict Confidence.

Who primarily decided this purchase? ☐ Male ☐ Female ☐ 18-24 ☐ 25-39 ☐ 40-59 ☐ 60 and over
Purpose of Purchase? _____
Do you own any other portable heaters? ☐ Yes ☐ No If yes, type_____brand_____
How do you intend to use your new heater? ☐ Construction Site ☐ Farm ☐ Warehouse/Commercial ☐ Garage/Outbuilding ☐ Other
How did you become aware of this heater? ☐ In-Store Display ☐ Newspaper Ad ☐Magazine Ad ☐ Friend/Relative
☐ TV Commercial ☐ Store Salesperson ☐ Other _____
What made you select this heater? ☐ Style ☐ Size/Portability ☐ Price ☐ Package ☐ Brand ☐ Other _____
Do you: ☐ own ☐ rent Would you recommend this heater to a friend? ☐ Yes ☐ No
Please give us your comments:_____

THANK YOU FOR COMPLETING THIS FORM!
Information will be held confidential.

WARRANTY REGISTRATION

IMPORTANT: We urge you to fill out your warranty registration card within fourteen (14) days of date of purchase. You can also register your warranty on the internet at www.ghpgroupinc.com. Complete the entire serial number. Retain this portion of the card for your records.

GHP Group, Inc.
8280 Austin Ave.
Morton Grove, IL 60053-3207

Tel: (877) 447-4768
www.ghpgroupinc.com

SAVE THIS CARD!

Place
Postage
Stamp
Here

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